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PUBLICATIONS

From Doctoral Thesis research

1. Abhiroop Mishra, [Dipobrato Sarbapalli](#), Oliver Rodríguez, Joaquín Rodríguez-López. “Electrochemical Imaging of Interfaces in Energy Storage via Scanning Probe Methods: Techniques, Applications, and Prospects” *Annu. Rev. Anal. Chem.* **2023**, *16*, 93-115. DOI: [10.1146/annurev-anchem-091422-110703](https://doi.org/10.1146/annurev-anchem-091422-110703)
2. Raghuram Gaddam*, [Dipobrato Sarbapalli](#)*, Jason Howard, Larry A. Curtiss, Rajeev S. Assary, Joaquín Rodríguez-López. “An SECM-based spot analysis for redoxmer-electrode kinetics: identifying redox asymmetries on model graphitic carbon interfaces” *Chem. Asian J.* **2023**, *18*, e202201120. DOI: [10.1002/asia.202201120](https://doi.org/10.1002/asia.202201120)
3. [Dipobrato Sarbapalli](#), Yu-Hsiu Lin, Sean Stafford, Jangyup Son, Abhiroop Mishra, Jingshu Hui, A Nijamudheen, Adolfo I. B. Romo, Zachary T. Gossage, Arend M. van der Zande, Jose L. Mendoza-Cortes, Joaquín Rodríguez-López. “A Surface Modification Strategy Towards Reversible Na-ion Intercalation on Graphitic Carbon Using Fluorinated Few-Layer Graphene” *J. Electrochem. Soc.* **2022**, *169*, 106522. DOI: [10.1149/1945-7111/ac9c33](https://doi.org/10.1149/1945-7111/ac9c33)
4. Abhiroop Mishra, [Dipobrato Sarbapalli](#), Md. Sazzad Hossain, Zachary T. Gossage, Zheng Li, Alexander Urban and Joaquín Rodríguez-López. “Highly Sensitive Detection and Mapping of Incipient and Steady-State Oxygen Evolution from Operating Li-Ion Battery Cathodes via Scanning Electrochemical Microscopy” *J. Electrochem. Soc.* **2022**, *169*, 086501. DOI: [10.1149/1945-7111/ac857e](https://doi.org/10.1149/1945-7111/ac857e)
5. Yunxiong Zeng, Zachary T. Gossage, [Dipobrato Sarbapalli](#), Jingshu Hui and Joaquín Rodríguez-López. “Tracking Passivation and Cation Flux at Incipient Solid-Electrolyte Interphases on Multi-Layer Graphene using High Resolution Scanning Electrochemical Microscopy” *ChemElectroChem* **2021**, *9*, e202101445. DOI: [10.1002/celec.202101445](https://doi.org/10.1002/celec.202101445)
6. [Dipobrato Sarbapalli](#), Abhiroop Mishra and Joaquín Rodríguez-López. “Pt/Polypyrrole Quasi-References Revisited: Robustness and Application in

- Electrochemical Energy Storage Research” *Anal. Chem.* **2021**, *93*, 14048–14052. DOI: [10.1021/acs.analchem.1c03552](https://doi.org/10.1021/acs.analchem.1c03552)
7. Zachary T. Gossage, Kendrick Hatfield, Yuanya Zhao, Raghuram Gaddam, [Dipobrato Sarbapalli](#), Abhiroop Mishra and Joaquín Rodríguez-López. *Application to Batteries and Fuel Cells* in [Scanning Electrochemical Microscopy](#), Taylor & Francis, **2022**. DOI: <https://doi.org/10.1201/9781003004592>
 8. [Dipobrato Sarbapalli](#), Abhiroop Mishra, Zachary T. Gossage, Kendrick Hatfield, and Joaquín Rodríguez-López. *Scanning Electrochemical Microscopy: A Versatile Tool for Inspecting the Reactivity of Battery Electrodes* in [Batteries: Materials Principles and Characterization Methods](#), IOP Science, **2021**. DOI: [10.1088/978-0-7503-2682-7ch9](https://doi.org/10.1088/978-0-7503-2682-7ch9)
 9. Abhiroop Mishra, Zachary T. Gossage, [Dipobrato Sarbapalli](#), Yuanya Zhao, and Joaquín Rodríguez-López. *Methods and Instrumentation in Energy Storage* in [Encyclopedia of Electrochemistry](#), Wiley-VCH, **2021**. DOI: [10.1002/9783527610426.bard030111](https://doi.org/10.1002/9783527610426.bard030111)
 10. Jingshu Hui, A. Nijamudheen, [Dipobrato Sarbapalli](#), Chang Xia, Zihan Qu, Jose L. Mendoza-Cortes, and Joaquín Rodríguez-López. “Nernstian Li^+ intercalation into few-layer graphene and its use for the determination of K^+ co-intercalation processes” *Chem. Sci.* **2021**, *12*, 559–568. DOI: [10.1039/D0SC03226C](https://doi.org/10.1039/D0SC03226C)
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 13. Zachary T. Gossage, Jingshu Hui, [Dipobrato Sarbapalli](#), and Joaquín Rodríguez-López. “Coordinated mapping of Li^+ flux and electron transfer reactivity during solid-electrolyte interphase formation at a graphene electrode” *Analyst.* **2020**, *145*, 2631–2638. DOI: [10.1039/C9AN02637A](https://doi.org/10.1039/C9AN02637A)
 14. Tylan S. Watkins*, [Dipobrato Sarbapalli](#)*, Michael J. Counihan*, Andrew S. Danis, Jingjing Zhang, Lu Zhang, Kevin R. Zavadil, and Joaquín Rodríguez-López. “A

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15. Jingshu Hui, Zachary T. Gossage, [Dipobrato Sarbapalli](#), Kenneth Hernández-Burgos, and Joaquín Rodríguez-López. “Advanced Electrochemical Analysis for Energy Storage Interfaces” *Anal. Chem.* **2019**, *91*, 60–83. DOI: [10.1021/acs.analchem.8b05115](https://doi.org/10.1021/acs.analchem.8b05115)

*Denotes equal contribution

From Masters Thesis research

16. [Dipobrato Sarbapalli](#), Xu Chen, Leslie Struble and Paramita Mondal. “Salicylic acid extraction of sodium aluminosilicates” *J. Amer. Cer. Soc.* **2022**, *105*, 7003–7010. DOI: [10.1111/jace.18658](https://doi.org/10.1111/jace.18658)

From Undergraduate research

17. [Dipobrato Sarbapalli](#), Yash Dhabalia, Kaustav Sarkar and Bishwajit Bhattacharjee. “Application of SAP and PEG as curing agents for ordinary cement-based systems: impact on the early age properties of paste and mortar with water-to-cement ratio of 0.4 and above” *Eur. J. Environ. Civ. Eng.* 2017, *21*, 1237-1252. DOI: [10.1080/19648189.2016.1160843](https://doi.org/10.1080/19648189.2016.1160843)

CONFERENCE PAPERS

1. [Dipobrato Sarbapalli](#) and Paramita Mondal, “Effect of TiO₂ and ZnO nanopowders on metakaolin-sodium hydroxide geopolymers” *Proceedings of the 41st International Conference on Advanced Ceramics and Composites*, **2018**, *38*, 251-262

POSTERS

1. [Dipobrato Sarbapalli](#), Abhiroop Mishra and Joaquín Rodríguez-López. “Pt/Polypyrrole quasi-references revisited: Robustness and application in non-aqueous electrochemical energy storage research” *Turkey Run Analytical Chemistry Conference*, **2021**

2. [Dipobrato Sarbapalli](#), Jingshu Hui, A. Nijamudheen, Jose L. Mendoza-Cortes, and Joaquín Rodríguez-López. “Few-layer graphene as a versatile analytical platform for exploring reversible Na^+ charge storage aided by fluorine surface modifiers” Society of Electroanalytical Chemistry Poster Session, *PITTCON*, **2021**
3. [Dipobrato Sarbapalli](#), Michael Counihan, Andrew Danis and Joaquín Rodríguez-López. “Application of electrochemical microscopy probe interfacial processes at redox flow battery electrodes” Society of Electroanalytical Chemistry Poster Session, *PITTCON*, **2020** (Best Poster Award)
4. [Dipobrato Sarbapalli](#), Michael Counihan, Andrew Danis and Joaquín Rodríguez-López. “Understanding interactions of redox-active organic molecules with carbon electrodes” *Turkey Run Analytical Chemistry Conference*, **2019**

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